Unusual Weight Gain After Antiretroviral Regimen Switch: A Case Report

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INTRODUCTION

- Evolving evidence suggests integrase strand transfer inhibitor (INSTI)-based antiretroviral therapy (ART) is associated with weight gain.1
- Switching from fixed-dose EFV/TDF/FTC to an INSTI-based regimen may result in more significant increases in weight.2
- INSTI-associated weight gain in the setting of pre-existing HIV-associated lipodystrophy has not been demonstrated.

CASE PRESENTATION

- A 46 year old female presented to transfer HIV care.
- Her antiretroviral regimen was LPR/RTV/3TC/EFV.
- She had a 15-year history of poor weight gain at each visit.
- She lost approximately 90 lbs over a 13 year period, which was attributed to appetite stimulants.
- Her antiretroviral regimen was LPR/RTV/3TC/EFV.
- She was at her lowest body weight at time of regimen change.
- It is not clear if she continued on appetite stimulants immediately after regimen change.
- Hepatitis C treatment was initiated after HIV regimen change to FTC/TDF and DTG.
- HIV weight-related stigma, generalized depression and anxiety were underevaluated.

PHYSICAL EXAM

- Vital signs: BP: 119/81, Weight: 69 kg (153 lbs)
- HEENT: Unremarkable. No thyroid enlargement
- LUNGS: Clear to auscultation
- HEART: Regular rate and rhythm
- ABD: Obese without hepatosplenomegaly
- M/S: Muscle loss of face and legs

CLINICAL COURSE

- Patient complained of poor weight gain at each visit.
- Tired various appetite stimulants but failed to achieve desired effect.
- Viral suppression was achieved and maintained.
- Hospitalized for altered mental status at which time antiretroviral regimen was changed from EFV/TDF to FTC/TDF and DTG.

RESULTS

- Patient gained an excess of 31.4 kg (69.08 lbs) after switch from EFV/FTC/TDF to an INSTI-based regimen.
- Her gain in weight resulted in a disproportionate increase in subcutaneous abdominal fat (SAT).
- Peripheral fat loss was essentially unchanged.
- Facial lipodystrophy improved. Patient very pleased.
- Plastic Surgery consulted for removal of redundant abdominal fat.

DISCUSSION

These outcomes are consistent with the recent reports of weight gain associated with integrase strand transfer inhibitor-based regimens. In addition, the switch from fixed dose EFV/TDF/FTC to an INSTI regimen may have contributed the rather significant increase in gain.

CONSIDERATIONS

- Patient presented with pre-existing features of lipodystrophy likely secondary to previous use of protease inhibitors.
- She was at her lowest body weight at time of regimen change.
- It is not clear if she continued on appetite stimulants immediately after regimen change.
- Hepatitis C treatment was initiated after HIV regimen change to FTC/TDF and DTG.
- HIV weight-related stigma, generalized depression and anxiety were underevaluated.

CONCLUSIONS

The associations between INSTIs and weight gain require additional investigations. The impact on pre-existing abnormal fat distributions also warrants research. In addition, providers must be geared to address body image perceptions and weight management strategies when initiating this newer class of antiretroviral medications.

REFERENCES


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